

of Williamson et al. (U.S. Patent 4,858,698). However, Claim 12 was indicated as including allowable subject matter.

First, Applicant acknowledges with appreciation the indication that Claim 12 includes allowable subject matter. However, since Applicant believes that Claim 1 includes patentable subject matter, Claim 12 is presently maintained in dependent form.

Briefly, Claim 1 according to the present invention is directed to a connection device connecting a spray boom to a chassis of an agricultural sprayer, and the connection device includes a single quadrilateral arranged in a plane which is substantially vertical and substantially parallel to a longitudinal plane of said sprayer. By providing such a single quadrilateral, the spray boom is more rigidly connected to the chassis without being inclined, thereby eliminating, for example, the non-uniform distribution of the product caused by multiple parallelograms.¹

GB '661 discloses a connection device for linking a spray bar to a chassis of a carrier vehicle. Nevertheless, GB '661 does not teach "a single quadrilateral arranged in a plane which is substantially vertical and substantially parallel to a longitudinal plane of said sprayer" as recited in Claim 1. As discussed previously, GB '661 discloses a connection device having two upper arms 30 arranged in two distinct vertical planes and one lower arm 36 arranged in yet another vertical plane between the two vertical planes of the upper arms 30. Therefore, the structure recited in Claim 1 is clearly distinguishable from GB '661.

Koster discloses a three-point hitch assembly, and thus does not teach "a single quadrilateral arranged in a plane which is substantially vertical and substantially parallel to a longitudinal plane of said sprayer" as recited in Claim 1. Specifically, the Koster hitch assembly has three pivoting arms, one upper pivot arm 12 and two lower pivot arms 14, 16. The upper pivot arm 12 is assembled at the pivot point 18, while the lower pivot arms 14, 16

¹ See Specification, page 2, line 5, to page 3, line 18.

are assembled at the pivot points 20, 22, respectively.² The two lower pivot arms 14, 16 are positioned at each lateral end of the assembly, and the upper pivot arm 12 is positioned approximately mid-way between the two lateral ends, thereby no single quadrilateral as recited in Claim 1 is formed by the upper arm 12 and lower arms 14, 16 of the Koster device.

The structure recited in Claim 1 is therefore distinguishable from Koster.

GB '841 discloses a device for stabilizing a spray bar 1 equipped in an agricultural sprayer 15, and as noted in the outstanding Office Action, is not believed to teach "a single quadrilateral arranged in a plane which is substantially vertical and substantially parallel to a longitudinal plane of said sprayer" as recited in Claim 1. Thus, the structure recited in Claim 1 is believed to be distinguishable from GB '841.

Williamson et al. disclose a link arrangement connected to the three-point hitch, and thus do not teach "a single quadrilateral arranged in a plane which is substantially vertical and substantially parallel to a longitudinal plane of said sprayer" as recited in Claim 1. That is, according to Williamson et al., the link arrangement includes a pair of quadrilaterals formed by a pair of spaced first vertical frame members 20, a second vertical member 22, *a pair of first horizontal frame members 26, and a pair of second horizontal frame members 32.*³ As such, in the Williamson et al. device, the pairs of quadrilaterals are provided along the tool bar 14 so as to ensure the connection of the tool bar 14. It is thus respectfully submitted that the structure recited in Claim 1 is clearly distinguishable from Williamson et al..

Because none of GB '661, Koster, GB '841 and Williamson et al. discloses the single quadrilateral as recited in amended Claim 1, even the combined teachings of these cited references are not believed to render the structure recited in Claim 1 obvious.

² See Koster, Fig. 1, and column 2, lines 55-60.

³ See Williamson et al., Fig. 1, and column 2, lines 18-48.

For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 2-19 ultimately depend from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-19 are believed to be allowable as well.

In view of the discussions presented above, Applicant respectfully submits that the present application is believed to be in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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